

Accepted by the Graduate Faculty, Indiana University,
in partial fulfillment of the requirements for
the degree of Master of Arts in English.

M.A. Committee

**"I will not have a single person slighted or left away": Whitman's use of
Science and Religion in "Song of Myself" to Proclaim Eternity and Promote Equality**

Director

Elizabeth M. Grassl Brenneman

August 28, 2014

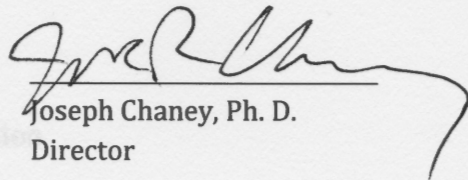
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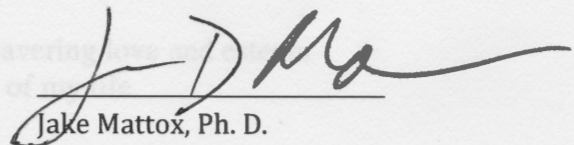
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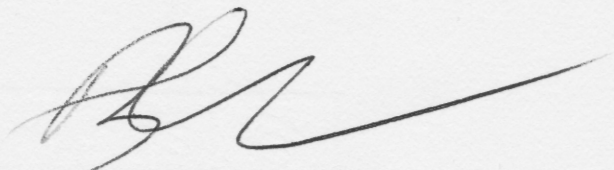


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Table of Contents

"I Will Not Have a Single Person Slighted or Left Away": Whitman's use of Science and Religion in "Song of Myself" to Proclaim Eternity and Promote Equality	3
--	---

Works Cited	15
-------------	----

Curriculum Vitae

Dedication

For my parents, whose unwavering love and esteem
are the anchor of my life.

Table of Contents

“I Will Not Have a Single Person Slighted or Left Away”: Whitman’s use of Science and Religion in “Song of Myself” to Proclaim Eternity and Promote Equality	3
---	----------

Works Cited	35
--------------------	-----------

Curriculum Vitae

“I will not have a single person slighted or left away”: Whitman’s use of Science and Religion in “Song of Myself” to Proclaim Eternity and Promote Equality

One of the key areas of research into Walt Whitman’s poetry since the 1855 inaugural publication of *Leaves of Grass* has been his use of natural science to express his ideas about the nature of death, the soul, and democracy. Although many contemporary reviewers focused primarily on what they considered the offensive, irreligious content and on the confusing structure of the text, going so far as to wonder how any man’s mind “could have conceived such a mass of stupid filth,”¹ ample others, while acknowledging that the work was a “curious and lawless collection of poems” for its time, remarked on Whitman’s use of science, noting his genuine intimacy with and original perception of nature.² Indeed, Whitman’s collection was unlike any volume of poetry previously published in America for several reasons, including the immediately apparent reasons of its sexual content, free verse, and “incorrect” grammatical structure which included ellipses in the middle of lines and lists without commas.³ The collection was also unique in its incorporation of science in a literary work, and this aspect of Whitman’s work is what I will focus on in this essay. Some forty years after its initial publication, American naturalist and nature essayist John Burroughs lauded Whitman’s use of science in his work, calling *Leaves of Grass* the first literary work to incorporate into its expression of artistic values the “stupendous disclosures of modern science.”⁴ While the debate as to whether Whitman crafted a poorly written, obscene text full of grammatically incorrect poems has been resolved, as most modern scholars readily

acknowledge the originality and revolutionary nature of his poetic style, the issue of his overall knowledge of the sciences of his day and his purpose for weaving those scientific concepts into his poetry is still being debated today. The conversation is by no means settled; modern scholars continue to explore Whitman's use of science in *Leaves of Grass*. Diana Kepner⁵ claims that Whitman combined scientific truth and mystical beliefs to arrive at a theory of nature, while Maria Farland⁶ asserts that Whitman's text is an outgrowth of his knowledge of natural science, particularly the regenerative powers of nature, as well as his preoccupation with death due to his personal experiences and his observations of societal conditions. These two scholars are representative of a current overarching claim concerning Whitman: that he had a working knowledge of most of the sciences of his day and that he made use of science in his poetry. Given the ample evidence from Whitman's poems, his notebooks, and biographical information such as lectures he attended and books he reviewed, Whitman clearly was well versed in the sciences of his era. In addition to the area of scholarly inquiry which focuses on the question of how much scientific knowledge Whitman really had, and how that knowledge, or lack thereof, is evinced in his poetry,⁷ other scholars have focused exclusively on Whitman's use of religious terms and allusions and on what they see as his attempt to create a new theory of religion or even a new religion. Some have argued that Whitman uses both science *and* religion throughout "Song of Myself" have considered the reasons that Whitman combines the two in the poem.⁸ It is this last line of inquiry that I will follow in this essay.

This essay demonstrates that Whitman displays considerable knowledge of the sciences of his era and that he uses science in the initial (1855) version of "Song of

Myself” to fulfill two main purposes: he attempts to formulate a cogent answer to the age-old concern of what takes place with the soul after death, and he promotes democracy through elevation of the common man over political institutions. Just as science is an equalizing force in the sense it makes no distinction between men based on wealth or social standing, so too are death and democracy equalizing forces. It is this common trait of science, death, and democracy that Whitman brings into play as he links the three in “Song of Myself.” Although there is certainly importance in considering Whitman’s other versions of this poem and in tracing the poet’s revisions over the years until its final revision in 1881, there is certainly also value in looking at the work in its original form and in its original historical context. Whitman himself stated if not a preference, then at least a fondness for his original *Leaves of Grass*. He mused to biographer Horace Traubel that it had “‘an immediateness,...an incisive directness’, absent from other editions, adding: ‘We miss that ecstasy of statement in some of the after-work’” (qtd. in *Leaves*, 2005). Clearly, even though he revised the text over the years, Whitman acknowledged that the original had perhaps more passion, urgency, and originality of thought than later revised versions. In looking at this first text, one can analyze Whitman’s initial reactions to and judgments of the social and political issues of his era. I will argue that Whitman incorporated science into his original “Song of Myself” to fulfill two main purposes: to attempt to assuage his own fear of death, and to promote democratic ideals. I will use historical analysis to establish Whitman’s preoccupation with death and his interest in democracy, supporting my claims with a close reading of the poem and of Whitman’s own Introduction to *Leaves of Grass*.

In the introduction to his inaugural publication of his *Leaves of Grass*, Walt Whitman credits various types of scientists and pseudoscientists as the fathers of his poetry, and indeed as the fathers of all “perfect” poems: “...the anatomist chemist astronomer geologist phrenologist spiritualist mathematician historian and lexicographer are...the lawgivers of poets and their construction underlies the structure of every perfect poem” (ix). Here, Whitman claims that scientific principles provide the structure that a poet uses to build the “perfect poem.” and we certainly see the principles of science presented in “Song of Myself.” However, Whitman also makes copious use of religious terms and allusions in the poem and he interweaves those terms with scientific references.

One of the seeming dichotomies in “Song of Myself” is the puzzle of Whitman’s use of both religious and scientific terms and allusions and how they relate to his understanding of life and an afterlife. As scholars have previously noted, various lines in “Song of Myself” seem to indicate Whitman’s belief in scientific principles, while other lines point to his adherence to religious beliefs. The following line represents but one example of his intertwining science and religion in the poem:

And I know that I am deathless,
 I know this orbit of mine cannot be swept by a carpenter’s compass,
 I know I shall not pass like a child’s carlacue cut with a burnt stick at night. (14)

Here, Whitman’s poetic persona employs both science-related vocabulary (*orbit*, *compass*) and a religious allusion to the Christian savior Jesus (*Carpenter*) to support his claim of being “deathless” as he states that he will not disappear with no trace of ever having existed as does the carlacue, or light trail, created and visible for only a few seconds as a child waves a burning stick in the night air. These lines and others

throughout the poem beg the question: is Whitman basing his claim of immortality on the scientific principle of conservation of mass or on the religious belief in another, further existence beyond the earthly realm? That is, is his claim of existing forever linked to the fact that the atoms that currently compose his body will exist in some form for all time, or on the idea that his soul will continue on after his earthly body ceases?

I. 19th Century Science

First, it is important to note that our modern concept of science differs significantly from the sciences of the mid-1800s. In its modern definition, science deals with objectively testing theories and/or observing phenomena in order to arrive at established facts. Although there were the beginnings of what would develop into modern empirical science,⁹ for the most part the “Science” in Whitman’s era was less objective; it sought (in many cases) to confirm a priori assumptions and to confirm man’s assumed place in the natural world: at the apex of mental and physical development. In the case of medicine, rather than providing empirical evidence of efficacy of treatment as would be expected today, these pseudosciences were primarily “proven” by patients’ testimonials.⁹ Additionally, while contemporary science involves only the physical and natural world, several “sciences” of Whitman’s era also incorporated the spiritual world. As empirical scientific methods and practices became more pervasive, many areas of science popular in Whitman’s day were discredited. They are commonly referred to today as pseudosciences. In his text *Pseudo-Science and Society in 19th Century America*, Arthur Wrobel introduces the modern reader to the scientific disciplines in play during the mid-to late-19th century: phrenology, mesmerism, spirituality, hydropathy, and homoeopathy. Although these disciplines have some differences – most notably that hydropathy and

homoeopathy were chiefly medical schools of thought while phrenology, mesmerism, and spiritualism investigated other areas in addition to scientific phenomena – they had much in common as well. Wrobel reveals they all denied a separation between the body and mind and between the material and spiritual, and that all presented a view that explained the structure of nature and man's place within it. In addition, these pseudosciences seemed rational and were egalitarian and practical. Take for example a preventative prescription from the pseudoscience of hydropathy: drinking water for internal cleansing. Certainly, using water to cleanse the inside of the body seems rational and practical as water is used for cleansing the outside of the body as well as a myriad other surfaces, and it is readily available. Although there were indeed exclusive water-cure resorts available only to the wealthy or aristocratic, any man or woman of limited means who had read of the techniques associated with hydropathy could access water for drinking. This seeming rationality and practicality made hydropathy and the other pseudo-sciences popular across a large segment of the population, from the educated and worldly to the unformed and unquestioning.¹⁰ A substantial number of prominent people from various social spheres embraced one or more of the pseudosciences including, Thomas Edison, Daniel Webster, Darwin, and Whitman himself. Legan reveals that, "In the 1820s the American nation had entered the period known as the 'age of the common man', when little credence was given to professional credentials"¹¹ This mindset surely aided in the diffusion of pseudoscientific practices throughout the nation. That is not to say that these sciences did not have detractors, for they certainly did. Wrobel shares the critiques of several detractors, including examples of protestant clergy who labeled

cigarettes attached to a battery.¹² Spiritualism emerged in 1848, just a few years before

spiritualism as heresy, and a former patient referring to homoeopathy as “an invention of the Father of Lies” (13).

Although these “sciences” have since been discredited due to their ultimate inability to provide sustained, documented evidence of efficacy, “given the state of contemporary scientific theory and practice, all these disciplines could [even] lay fair claim to being legitimate sciences” in an era when legitimate medical treatment included violent and dangerous procedures of bloodletting and doses of mercury or arsenic (3). Perhaps more so than in the modern age, people of the era were willing to accept new ideas and treatments. A brief description of each of these five contemporary sciences will be useful in tracing Whitman’s use of them in “Song of Myself.” Hydropathy, also known as the water cure, involved the use of water either internally or externally to prevent or cure disease. This could include the patient drinking from five to forty tumblers of water per day or being tightly wound in a wet sheet for several hours. Homoeopathy involved “imitating nature” by administering minute doses of a mild disease to cure a more serious disease with similar symptoms. As the body attacked the milder disease it was believed that it also simultaneously cured the more serious primary disease. Mesmerism, founded by Franz Mesmer and introduced to Americans in the 1830s, was based on the principle that the human body is subject to an invisible magnetic fluid and that imbalances in this fluid cause illness. A physician manipulating the fluid by passing magnets or merely his hands over the affected areas would affect a cure. Greenway reveals that later “cures” involved the use of electricity to affected parts of the body via the use of various battery powered “electric” devices such as belts, corsets, and cigarettes attached to a battery.¹² Spiritualism emerged in 1848, just a few years before

Whitman published his first volume of *Leaves of Grass*. This practice, promoted as a combination of faith and science, involved communication with spirits of the dead and the curing of spiritual as well as bodily illnesses. Finally, phrenology, founded by Viennese anatomist Franz Josef Gall, introduced to Americans in the 1830s and made popular in the U.S. by Lorenzo Fowler and his brother Orson S. Fowler (the former was later to become distributor of the 1855 *Leaves of Grass*), was concerned with reading the contours of the human skull to determine an individual's character strengths and weaknesses.

In addition to the differences mentioned above, another fundamental distinction between modern science and the pseudosciences of the 19th century concerns religious principles. Although the current definition of science largely places it in direct opposition to religion, this has not always been the case. In his essay "Science and Pseudoscience," Harold Aspiz reveals that in Whitman's era the boundaries of science were fluid and the distinctions "between fact-based and faith-based assumptions were not always clear, even to many scientists" (218). Along these lines, Aspiz states that two conflicting scientific standards existed side by side: one approach resembled our modern empirical method and required precise observation, data collection, generalizations drawn only from evidence, and a rejection of a priori assumptions, while the other viewed scientific discoveries as "confirmations of a governing set of a priori principles and assumptions (often religious in nature)" (219). According to Aspiz it is this second view, called dualism, which Whitman demonstrates in his poetry: the idea that the discoveries of science are valuable largely because they confirm the divinity of creation. So, this marrying of the scientific and religious ideas, which might appear unusual to the modern reader, was in fact

somewhat common in Whitman's era. Indeed, David Reynolds reveals in his text, *Walt Whitman's American: A Cultural Biography*, that:

The distance between mainstream religion and progressive science was not great in [Whitman's] day. To the contrary, pre-Darwinian religious thinkers and philosophers made great efforts to align themselves with scientific theory in order to gain intellectual credibility. (253)

Thus, we see that those in the field of science and those in religious positions made use of one another's concepts in their own theories: some scientists made use of religious concepts to create a "religiously oriented scientific vision," perhaps to make their new ideas more palatable to the mainstream or perhaps because they could not completely reject the religious tenets themselves, while at times "religious thinkers" used scientific concepts to augment their ideas to make them intellectually appealing to more people, perhaps to appeal to "modern" thinkers and to keep themselves relevant as new scientific ideas began to circulate in general society and to become more and more accepted as truth (Reynolds, 253).

II. Whitman and the Pseudosciences

Some scholars posit that Whitman was a knowledgeable proponent of several of these areas of study, especially phrenology, and that his knowledge of scientific ideas is evident in his poetry. In his article, "'The Password Primeval': Whitman's Use of Science in 'Song of Myself,'" Robert Scholnick asserts that Whitman had ample knowledge of the scientific concepts of his era and that knowledge is evident in his poem "Song of Myself." First, Scholnick acknowledges that scholars have claimed since the

initial publication of *Leaves of Grass* that Whitman lacked basic knowledge of the sciences of his day. He gives as an example Floyd Stovall, a contemporary of Whitman's, who conducted a thorough review of the poet's assumed sources and concluded that "there is no evidence in the poems of the 1855 edition that anything more than the romance of science had interested him seriously" (386). Clearly, Stovall saw no proof in the inaugural edition of *Leaves of Grass* that Whitman had more than a passing knowledge of contemporary science. To refute this assertion Scholnick points to the work of two modern scholars, Joseph Beaver and Harold Aspiz, who each show Whitman's remarkable knowledge of contemporary sciences and pseudo-sciences, arguing that he used that knowledge to create his poetic persona. Finally, Scholnick delves into the possible sources of the poet's scientific knowledge, focusing primarily on Whitman's connection to Edward Livingston Youmans, "the preeminent expositor of science in the thirty-year period beginning in the mid-1850s" (386). According to evidence unearthed in a 1907 letter, Whitman and Youmans lived on the same floor in a boarding house for a time in the mid-1850s. In addition, "Near the end of his life, in conversation..., the mention of Youmans' name brought from Whitman a fine appreciation of the scientific habit of mind" (386). This report comes from Horace Traubel who spent long periods of time with Whitman and who wrote a biography of the poet. Scholnick credits Youmans with introducing Whitman to a pre-Darwinian theory of evolution; Robert Chambers' *Vestiges of the Natural History* published in 1844.¹⁴ Although much of Chambers' theory was later disproven, his central concept was sound, the idea "that creation is a dynamic and on-going process throughout the cosmos" (394). Chambers pointed to fossils (the

theory that enabled him to comfortably embrace both science and religion

“vestiges” of his title) as evidence of evolution, and as Scholnick illustrates, Whitman demonstrates an understanding and endorsement of evolution in “Song of Myself:”

I find I incorporate gneiss and coal and long-threaded moss and fruits and grains
and esculent roots,/And am stucco'd with quadrupeds and birds all over, (22)

Here, Whitman incorporates organic and inorganic entities into himself as his roots, placing himself within the progression of evolution.

While Scholnick handily anchors his thesis with evidence from these other scholars and from the poem itself, I believe he falls short in one key area. To support his thesis that Whitman demonstrates extensive scientific knowledge in “Song of Myself,” Scholnick excerpts Whitman’s Introduction to the inaugural edition of *Leave of Grass*, revealing that Whitman “asserted that scientists are ‘the lawgivers of poets and their construction underlies the structure of every perfect poem’” (385). Here, Scholnick dissects a sentence, choosing to focus solely on the portion mentioning the pseudosciences which focus primarily on “scientific” ideas. In actuality, Whitman credited more than merely scientists here: “The *sailor and traveler*...the anatomist chemist astronomer geologist phrenologist *spiritualist* mathematician historian and lexicographer are not poets, but they [all] are the lawgivers of poets...[emphasis added]” (ix). Whitman indeed credits men of science here as Scholnick asserts, but he also mentions men of a pseudoscience which combines science with religion, the “spiritualist.” This list then not only demonstrates Whitman’s exaltation of the common man, represented by the sailor and the traveler, it also hints at his valuation of religious thought and his poetic attempt to intertwine religious and scientific theory to create a theory that enabled him to comfortably embrace both science and religion.

In addition to knowledge of pre-evolutionary theory, there is evidence in “Song of Myself” that Whitman had a working knowledge of the concepts of Mesmerism. As Scholnick rightly points out, the following line contains terms common to the pseudoscience, “Through me the afflatus surging and surging...through me the current and index” (17). Here, Whitman uses the word *afflatus*, meaning both “breath” and also “spiritual or poetic inspiration” and combines it with a term used in to refer to electricity: current.¹⁴ Mesmerism included the use of electricity to control and direct the flow of the currents of electricity thought to be coursing through the human body. Thus, as in his Introduction to *Leaves*, Whitman is again crediting (pseudo)science with giving him poetic inspiration, and with allowing him to breath out that inspiration onto the page. I argue that there are other lines in the poem demonstrating Whitman’s acceptance of the ideas of Mesmerism, specifically, as he calls himself a “Partaker of influx and efflux” (15). In terms of Mesmerism, *influx* refers to the reception of the human mind and body of spiritual information and “light” from another human, while *efflux* refers to the transfer of the same out of a human or a spirit.¹⁵ Whitman’s use of these terms within his poem suggests his belief in the tenets of Mesmerism. Finally, there is historical evidence that Whitman was an adherent of phrenology. He attended at least one lecture on the topic and makes reference to its principles in “Song of Myself.” In addition, Lorenzo Fowler performed a phrenological examination on Whitman in July 1849, scrutinizing his skull and delivering a favorable reading which Whitman found so to his liking that he had it published five times during his life.¹⁶

One of the chief principles of this pseudoscience was the belief that there is a correlation between physical health and mental and spiritual well-being. The

phrenologists believed that “An identifying characteristic of a great [moral] man is his ‘great *physical* strength and vital stamina.’”¹⁷ That is, by keeping his body in a healthy condition, man could grow wiser and more spiritually aware and morally upright. I assert that we can determine Whitman’s adherence to this principle of phrenology in “Song of Myself” as Whitman’s poetic persona boasts of his physical health and strength and connects that health with a spiritual awareness:

Sure as the most certain sure...plumb in the uprights, well entretied, braced in
the beams,

Stout as a horse, affectionate, haughty, electrical,

I and this mystery here we stand.

Clear and sweet is my soul...and clear and sweet is all that is not my soul.

Lacks one lacks both...and the unseen is proved by the seen,

Till that becomes unseen and receives proof of its own. (2)

The persona boasts of his physical form and strength, calling himself “plumb in the uprights”, “well entretied” (well plastered), and “stout,” and immediately following mentions his clear, sweet soul, along with the claim that the lack of one of the two (physical health) signals the lack of the other (a clear soul). Clearly, physical and mental health and well-being are linked in Whitman’s mind as they are in phrenological belief.

III. Whitman’s Use of Religion

Rather than focus solely on Whitman’s use of science as Scholnick does, other scholars have focused in on Whitman’s use of the established language and concepts of religion, sometimes linking his use of religious terms to contemporary scientific ideas.

Others, like Harold Aspiz mentioned above, postulate that Whitman's use of scientific and religious terms show that he was a dualist.¹⁸ This concept held that discoveries made through science "are valuable primarily because they confirm the divinity of creation or some other governing principle" (219). In this view, Whitman is seen as using science and pseudoscience to underpin his religious beliefs. Conversely, Wrobel argues that Whitman was not a dualist at all but rather a materialistic monist. That is, he believed that the body and soul are merged in an "indivisible One."¹⁹ This theory, which combines the principles of phrenology with the religious belief of an everlasting soul, holds that the human body is as divine as the human soul and that an exceptionally healthy and robust body hosts an equally exceptional soul. The converse would also hold true: a diseased body or a body corrupted by immoral vice hosts a corrupted soul.

In looking at Whitman's relationship to religion and phrenology in his article "Whitman and the Phrenologists," Arthur Wrobel notes that Whitman's poetic writings echo the "exuberant and evangelical tone found in the personal and social reform tracts" of the day (21). For example, in sections 8 and 9 of "Song of Myself" the poetic persona seeks to answer a child's question: "What is the grass?" He responds to the question in religious as well as scientific terms. First, he guesses the grass "is the handkerchief of the Lord," identifying the grass as part of God's creation, an ever-present sign a God's existence. Then, he uses the science of decomposition and the chemical understanding that atoms are never destroyed as he identifies the grass as transpiring from the breasts of young men, from women, and from their offspring. Given these few lines, as well as others in the poem, it is clear that Whitman did use Christian religious terminology in

article "Dr. Richard Maurice Bucke: A Religious Disciple of Whitman," Bucke spend the

“Song of Myself,” fulfilling his own claim in his Introduction that the pseudoscientific religious thinkers, the spiritualists, are among the fathers of his poems.

In reading the poem purely through a religious lens, one can see it abounds with religious terminology and allusion. Looking at frequency alone, Whitman refers to God 18 times and his soul 12 times. In addition, he uses other religious terms such as Lord, spirit, immortal, baptised (sic), righteous, sin, pray, prodigal, faith, divine, holy, worship, miracle, eternity and the gospels through the poem. His journey over the country looking at the diverse sights and citizens below can be interpreted as the overseeing view of an omniscient God (23-25). Most notably, Whitman also makes allusions to Jesus Christ several times when referring to himself. He states, “I am given up by traitors” as Jesus was given up to the Romans by the traitor Judas Iscariot (21). He calls children unto himself as Jesus did as he urges, “Come my children” (34). He even alludes to Jesus’ scourging and death by crucifixion as he exclaims of himself:

That I could forget the mockers and the insults!

That I could forget the trickling tears and the blows of the bludgeons and hammers!

That I could look with a separate look upon my own crucifixion and bloody crowning! (31)

Indeed, Whitman’s use of religious terminology is so dense that his writing convinced at least one reader that he was the new Christ. Dr. Richard Maurice Bucke, a contemporary of Whitman, we met Whitman and visited with him on several occasions, read his poetry as religious text, and saw Whitman as the new Christ. As Artem Lozynsky reveals in his article “Dr. Richard Maurice Bucke: A Religious Disciple of Whitman,” Bucke spend the

majority of his life attempting to convince others to believe as he did – that Whitman was the modern day equivalent to Jesus Christ and that he (Bucke) was the contemporary St. Paul, spreading the gospel of Whitman's divinity. And he certainly spread the word, authoring three books on Whitman as well as penning numerous articles and delivering lectures on the topic. Bucke went so far as to attempt to get Whitman himself to confess his divinity. Even as Whitman was on his deathbed Bucke sent several letters to Whitman's attendants urgently requesting they question him about the matter. Lozynsky reveals that, not surprisingly, Bucke's dedication to Whitman was an embarrassment to his wife and friends and made him ridiculous to his contemporaries. I do not use Bucke's story in an attempt to claim Whitman's divinity, but rather to illustrate the point that Whitman's use of religious vocabulary in his poem "Song of Myself" was so dense that it had the effect of convincing some readers that it was a primarily a religious text, rather than one which combines religion with the of scientific theories in play in the early to mid-1800s. Further muddying the waters in this area, Whitman himself referred to the text as the "New Bible."²⁰ Given the fact that scientific references are woven throughout the poems of *Leaves of Grass*, I assert however that Whitman did not intend his work to be taken as merely a religious text, but as one which combined science and religion as did was common in the era. I contend that his intent was additive, to supplement religious ideas with scientific ones to create a new way of thinking about death of the body and the eternity of the soul. However, I believe he was ultimately unable to satisfy his own desire to resolve the question of the human soul's religiously supported eternity.

and exclamations of unity with nature and man.

IV. Whitman's Use of Science and Religion in "Song of Myself" to Proclaim

Eternity of the Body

"Song of Myself" can be a difficult poem to analyze in its entirety due to its length and seeming contradictions. Indeed, Whitman himself admits to being contradictory as near the end of the poem he asks his reader, "Do I contradict myself?/Very well them...I contradict myself;/I am large...I contain multitudes" (43). Here, he appears to be admitting that he realizes his lines contradict themselves because of the sheer volume of ideas and descriptions he has incorporated into the poem. And this proliferation of ideas is not by mistake; in one of his early notebooks in which he is planning his next "major work," Whitman jotted the following idea as a possibility:

A poem in which all things and qualities and processes express themselves – the nebula – the fixed stars – the earth – the grass, water, vegetable, sauroid, and all processes – man – animals.²¹

So, while Whitman acknowledges that his lengthy poem appears to contradict itself at times, this is perhaps understandable when one considers the fact that his intent was to address "all processes and things" in its lines. One must also realize that although there may be contradiction in the poem, there is purpose as well. Whitman says as much, "Do you guess I have some intricate purpose? / Well I have...for the April rain has, and the mica on the side of a rock has? (13). Despite the poem's "contradictions", it can be analyzed if one teases out the poet's themes and follows them as they cycle through the poem's diverse images and ideas presented in the poetic persona's visions, catalogues and exclamations of unity with nature and man.

As Black rightly argues, Whitman's poems originate from his internal conflicts and serve a function similar to the modern practice of talking to a therapist. Black asserts that the poetry in *Leaves of Grass* was written as Whitman's urgent attempt to suppress the pain of his internal struggles with his sexuality, the deaths in his family and around him in society, and with the reality of his own mortality, but that his poetic claims "gave but temporary relief from symptoms of internal conflict, and left the conflicts themselves unresolved."²² Black briefly mentions "Song of Myself" but does not offer a detailed analysis of the poem. He instead considers four shorter poems from the text. I concur with Black's assertion and here will prove his claim by demonstrating the seeming resolution of crisis in "Song of Myself" and the later reappearance of the same internal crisis. While it is not the only crisis evident in the poem, I will focus on Whitman's dismay at his mortality and show that one of the primary purposes for which Whitman uses science in "Song of Myself" is to attempt to assuage his dread of death.

Death was a preoccupation for Whitman; it was everywhere around him. Death and dying were very much a part of the world in which Whitman lived, in both a personal and societal sense. He suffered the loss of several family members fairly early on in his life, including an infant sister and his father. In addition to the deaths in his personal life, American society in the first half of the publication of *Leaves* was rife with disease and death. With a national high infant mortality rate, epidemic diseases, elaborate funeral processions, and sensational reports of deaths due to fire for natural disasters in newspapers, no one of the era could escape what were likely daily reminders of mortality.²³ The city where Whitman spent the majority of his life, New York, was rife with unsanitary living conditions, death, and decaying organic matter. Farland reveals

that in the first half of the 19th century New York suffered a “massive onslaught of environmental waste, decay, and decomposition” due to increased density of residents in the city.²⁴ Given the personal tragedies of his life, the conditions of his city, and the national preoccupation with death, it is no surprise that Whitman returns frequently to the theme of death in his poetry. In “Song of Myself” he mentions deaths of all manners, to people of all ages. Yes, to “old people” as one might expect as their death is considered part of the natural order, but also to the death of “the suicide,” “the child of the child who served in the [ship’s] cabin,” and “offspring taken soon out of their mothers’ laps” In addition to being peppered with these individual deaths, “Song of Myself” contains references to death rituals and large numbers of dead, as Whitman undoubtedly saw in his daily existence. In one of the lists, or “catalogues,” in the poem the poetic persona journeys over the cities, farms, lands, and waters of the country land in an imaginary vision. Among the myriad items he lists “the dead [who] are corrupting below,” “burial coaches enter[ing] the arched gates of a cemetery,” and a “coffined corpse” examined by candlelight (25). This range of deaths and death rituals in the poem amply demonstrate that Whitman’s thoughts often cycled back to the subject of death, a subject that as Black asserts, caused him distress. Man can turn to religion as a way to assuage his fear of death, but Whitman instead turns to science.

Throughout “Song of Myself” Whitman uses science to promote the concept of the deathlessness of man. The following lines exemplify the central claim in the poem that there is actually no “death” in the traditional sense of death being the end of bodily existence:

What do you think has become of the young and old men?

And what do you think has become of the women and children?

They are alive and well somewhere;

the smallest spout shows that there is no death,

and if ever there was it led forward life, and does not wait at the end to arrest it,

and ceased the moment life appeared.

All goes onward and outward...and nothing collapses,

And to die is different from what any one supposes, and luckier. (5)

The claim that “The smallest sprout shows that there is no death” attests to Whitman’s belief in the immortality of man through the scientific reality that atoms are not destroyed at the death of one entity, but rather are recombined into another (entirely different) compound or entity. This was a concept that Whitman was well aware of as evidenced in his 1847 review of Liebig’s chemistry text, as mentioned above. Referring to science, Whitman asserts that those who have died are not only “alive,” they are “well” somewhere and that to die is a “lucky” occurrence when viewed through the lens of science (16). A key trope Whitman uses to represent science in the poem is grass. When answering the child’s question “What is the grass?”, he responds, “I guess it must be the flag of my disposition, out of hopeful green stuff woven” (4). Here, Whitman claims a hopeful perspective regarding death, based on science. His claim that the grass is part of the cycle of life, being formed from other matter, at times from human corpses, is here combined with his hope. Thus, one can conclude that his hope comes from the knowledge

that there is no death, according to the scientific principle of conservation of mass. The atoms are never destroyed but instead form ever different forms of life. Further, he asks his reader “Who need be afraid of the merge?” (5), signaling that he himself has no fear of “merging” with the natural world in death because he knows the substance that makes up his body will continue on. He wants to share his joyous knowledge with his fellow man. Elsewhere in the poem we see again his desire to encourage others in the face of death. Knowing that all men are made of the same stuff, Whitman would not have anyone else suffering the anguish of uncertainty in considering his or her own death:

“Do you see O my brothers and sisters?

It is not chaos or death...it is form and union and plan...it is eternal life...

It is happiness. (43)

Indeed, he is adamant as he denies distress over death:

I do not snivel that snivel the world over,

That months are vacuums and the ground but wallows and filth,

That life is a suck and a sell, and nothing remains at the end but the threadbare
crape/and tears. (13)

He declares he will not whine and complain about life and death as others do. However, that is not to say that he is certain about what will happen as later in the poem he admits as much, “I do not know what is untried and afterward” (37). These lines create one of the contradictions that Whitman alludes to.

While at times Whitman does boldly profess hope and fearlessness in the face of death in “Song of Myself,” other lines point to his continued distress at the prospect of dying. This is because although Whitman handily establishes the immortality of the *body*

through science, he struggles to find evidence to support the immortality of the *soul*, a soul we can determine Whitman does believe exists as he states: “I believe in you my soul...” (3). Given that some of the pseudosciences of the day, including phrenology, claimed the inseparability of the body and soul, one can imagine his consternation as he attempted to puzzle out this dilemma. Note his reaction in one of his “visions” (presented as a memory) as Whitman describes the resulting deaths and the bloody aftermath of a revolutionary-era naval battle: “Formless stacks of bodies and bodies by themselves...dabs of flesh upon the/masts and spars” (30). Viewing these bodies upon bodies, Whitman goes on to further describe the fallout of the combat:

The hiss of the surgeon’s knife and the gnawing teeth of his saw,

The wheeze, the cluck, the swash of falling blood...the short wild scream, the

long dull tapering groan,

These so...these irretrievable.

O Christ! My fit is mastering me!

What the rebel said gaily adjusting his throat to the rope-noose,

What the savage at the stump, his eye-sockets empty, his mouth spiriting whoops

and defiance,

What stills the traveler come to the vault at Mount Vernon,

What sobers the Brooklyn boy as he looks down the shores of the Wallabout and

remembers the prison ships,

What burnt the gums of the redcoat at Saratoga when he surrendered his brigades,

These become mine and me every one, and they are but little,

I become as much more as I like. (30)

Upon viewing the surgeon working on the dying and hearing the long death groan of the patient at the beginning of the excerpt, Whitman muses that those lost to death cannot be retrieved and exclaims that his agony has reached such a fitful level that he is losing control of his mental state. These lines make clear Whitman's knowledge that death comes to all and "sobers" their thinking. He cannot find relief from his thoughts through science alone.

Although Whitman makes ample reference to religion throughout the poem as noted above, religion is no real help to Whitman here. He denies that religious figures (and presumably their messages) hold any contemporary relevance:

Magnifying and applying come I,
 Outbidding at the start the old cautious hucksters,
 The more they offer for mankind and eternity less than a spirt of my own seminal
 wet,
 Taking myself the exact dimensions of Jehovah and laying them away.
 Lithographing Kronos and Zeus his son, and Hercules his grandson,
 Buying drafts of Osiris and Isis and Belus and Brahma and Adonai,
 In my portfolio placing Manito loose, and Allah on a leaf, and the crucifix
 engraved,
 With Odin, and the hideous-faced Mexitli, and all idols and images,
 Honestly taking them all for what they are worth, and not a cent more,
 Admitting they were alive and did the work of their day, (33)

In these few lines, Whitman takes the measure of the world's religions and finds them lacking for the modern world, putting them away like so many dusty memories into a

scrapbook. Referring to the gods (and perhaps their religions) as “old cautious hucksters,” Whitman discredits them by linking them with outdated, shrewd, calculating hawkers of inferior goods. Whitman’s list encompasses the gods of numerous religions old and new, and from traditions throughout the world – from Jehovah of the Old Testament of Christianity and Judaism to Mexitli the Aztec god – declaring that what they offer less “eternity” than semen, the scientific stuff of human reproduction.

Much like the natural life-cycle of rebirth or regeneration through nature as the body’s atoms reform into another entity, Whitman’s poem cycles back on itself as he asserts his dauntlessness at the prospect of death, then exclaims his fear and dread at the reality, and then again professes his belief in the immortality of man. This cycle continues throughout the poem as he calms his fears only to have them reappear in later lines. While the closing lines of the poem speak of his surety that that which was his body will still physically exist somewhere on the Earth after he dies. Although he tells his reader where to find him in the future, he makes no mention of his soul or spirit watching over or waiting for those who will follow:

I bequeath myself to the dirt to grow from the grass I love,

If you want me again look for me under your bootsoles. (44)

Plainly, while he succeeds in demonstrating the “immortality” of the body through science, Whitman ultimately fails in his attempt to prove immortality of the soul to his own satisfaction in “Song of Myself. However, he does succeed in employing science and religion to prove another of his major themes of the poem.

V. Whitman's use of Science and Religion in "Song of Myself" to Promote Democracy

A key contemporary issue that Whitman addresses through natural science and religion in "Song of Myself" with more success than he has with the soul is the democratic ideal of equality of man. Equality of man, one of the primary tenets of democracy, was of significant interest in Whitman's era. The years leading up to and following the publication of *Leaves of Grass* were filled with political and social turbulence. The crises in the "bubbling social cauldron" of the mid-1850s were numerous: corruption in high places was rampant, the old political party system had ruptured and a new one struggled to establish itself, immigration was at an all-time high fueling antforeign sentiment among a population fearing for their jobs and fearing a dilution of their culture, the gap between rich and poor was ever-widening, the economy fell in late 1854 causing widespread unemployment, and the issue of slavery was beginning to divide the nation.²⁵ This was the climate in which Whitman labored over and gave birth to this volume of poems wherein he seeks to enact political regeneration as he elevates individual men and women of all races over monolithic, impersonal institutions of government.²⁶ As Reynolds explains, there were others of the era besides Whitman who were "tapping into the antiauthoritarian, free-labor ideology of the midfifties," including writers like Emerson and Thoreau. Like Whitman, they sought to enact positive change in the social and political systems of the country. But, Whitman's disenchantment with the established social system was much deeper than others', and his plan of action for cultural regeneration far more sweeping.²⁷ Much as Black notes the urgency in Whitman's desire to reach cathartic resolution of mental crisis through his poetry,

Reynolds also notes his urgency of purpose in seeking to disseminate democratic ideals among the common man:

Bringing together different cultural images was not mere literary exercise for Whitman. It was an act of extreme urgency, even desperation. Confronted with a social crisis and with a checkered private history, Whitman sought in poetry healing for his nation and himself. (322)

That Whitman intended to promote democracy in “Song of Myself” is widely accepted. Indeed, as Frank recounts, Whitman himself claimed that his poetic intention was to “sing the multitudinous diversity of the vox populi back to the people themselves, thereby . . . enabling a radical democratic politics of collective revision.”²⁸ His desire was for the ordinary American to realize his key place in the makeup of the nation. In his Introduction to *Leaves of Grass*, Whitman outlines his belief in the importance of the common man in the nation:

Other states indicate themselves in their deputies...but the genius of the United States is not best or most in its executives or legislatures, nor in its ambassadors or authors or colleges or churches or parlors, not even in its newspapers or inventors...but always most in the common people. (iii)

Here, Whitman is placing the everyday citizen in a position superior to the nation’s leaders, indeed inverting the structure of the democracy as he further claims that (through the “terrible significance” of elections) the President takes his hat off to salute the common man, not they to him (iii).

Although other poems in *Leaves of Grass*, such as “A Song for Occupations” for example, have a more openly democratic sentiment, Whitman’s desire of a democracy in

which the common man is an active, equal participant in governing as well as recipient of the nation's largess is also evident in the lines of "Song of Myself." In the same manner of his presentation of eternity through pseudoscience, Whitman interweaves scientific and religious principles to present his beliefs about the importance of the common man in a democratic state.

A key symbol that Whitman employs in "Song of Myself" to illuminate his claim of the equality of man is the same grass he uses to demonstrate the eternity of man. As previously mentioned, Whitman initially identifies the grass as the flag of his hopeful disposition in the face of death, but he continues in his answer to the child's question "What is the grass?":

Or I guess it is a uniform hieroglyphic,

And it means, Spouting alike in broad zones and narrow zones,

Growing among black folks as among white folks,

Kanuck, Tuckahoe, Congressman, Cuff, I give them the same, I receive them the same. (4)

Here, he uses the notion that grass can grow anywhere, in "broad zones and narrow zones," and links that grass with men of different races and different social classes. His assertion here is that just as nature and science make no distinction between broad and narrow lanes when it comes to where grass grows, it also makes no distinction between races and classes or men and does not prefer one over the other, and neither does he. These lines about the scientific "democracy" of the grass also carry religious allusion. The poet's claim to receive all people equally parallels Jesus' acceptance of all people, whether they be bride or prostitute, saint or sinner.²⁹

Whitman reinforces this idea of the equality of all human beings in another of the catalogues in the poems which runs over three pages. Here, he lists people from all walks of life and their actions, making no distinction or judgment between better or worse: the carpenter dressing his plank, the deacon crossing his hands at the altar, the lunatic being carried to the asylum, the quadroon girl being sold at auction, the half-breed readying himself to compete in a race, the Yankee girl working in the factory, and on and on...the bride, the opium eater, the prostitute, the President, the fare-collector, the squatter, the patriarch (11). In case his reader has missed the point, Whitman makes sure it is understood that he considers himself no better than any other, and he believes no one person is better than another. He ends this catalogue by declaring, "And such as it is to be of these [people] more or less I am," and that he himself is "One of the great nation, the nation of many nations – the smallest the same and the largest the same." He is more or less the same as all others in importance to value to the nation, and regardless of station in life, be it low or high, all are the same in a democracy.

Whitman later uses religious reference to demonstrate the commonality of man and each man's right to the bounty that the nation has to offer as well as a place in the controlling institutions of the nation:

This is the meal pleasantly set...this is the meat and drink for natural hunger,
It is for the wicked just the same as the righteous...I make appointments with all,
I will not have a single person slighted or left away.

The keptwoman and sponger and thief are hereby invited...the heavy lipped slave
is invited...venerealee is invited.

There shall be no difference between them and the rest. (13)

Whitman's reference to a meal pleasantly set parallels several mentions in the Bible of a meal that is "set before" a guest in someone's home. The guest is instructed to receive the meal and not worry about whether it is acceptable to eat according to religious law as it would be rude to refuse food offered by a host.³⁰ As Whitman was aware, the salvation offered by Jesus Christ in the Christian religion is available to all, regardless of race or social standing. Again as Jesus does, Whitman seems to prefer the imperfect, the sinner, over the righteous³¹ as he here only mentions people who would have been considered less than: the keptwoman, thief, and slave.

Whitman's fervent desire for the United States to be a "live nation" (*Leaves*, iv) of common men actively participating rather than one of dead institutions can perhaps be seen in these lines:

Unscrew the locks from the doors!

Unscrew the doors themselves from their jambs! (17)

His yearns for a change so radical that it would involve not merely unlocking the doors of the controlling institutions be removing the doors entirely, allowing access to all.

Given these few examples of the many lines in the "Song of Myself" in which Whitman makes scientific or religious allusions, one can see that Whitman successfully weaves together scientific and religious references to establish the claim he makes in his Introduction in regard to the everyday man: that the common man is equal to those men in higher stations of life and he must hold the highest place in a democracy (replacing cold, impersonal institutions) for that democracy to be a viable, living entity.

The 1850s were both a hotbed of social and political unrest in the United States and also an era of innovative ideas in science. Whitman conceived and published *Leaves of Grass* in response to this backdrop of contemporary crises and change, from the national political corruption and debate over slavery, to the local rampant disease and death in Whitman's hometown of New York City, to his personal experiences with death and dying. Although the first poem of the text, "Song of Myself", can at first seem ponderous and full of contradictory ideas and images, it is possible to isolate Whitman's individual themes and trace their path as they cycle through the poem and to ascertain his purposes. Whitman uses tenets of the contemporary sciences, pseudosciences and religion to present his messages of eternity and equality. His handily supports his claim that the substance of the human body continues on in existence indefinitely as it is recombined into other forms through the science of chemistry. However, he fails in his attempt to calm his terror of death and to establish the eternity of the soul. He has better success in using science and religion to promote the equality of man and individual man's importance over democratic institutions created to support democracy.

4. John Burroughs explains Whitman's contributions to the area of science in literary words in his chapter "His Relation to Science." In his 1896 text *Whitman: A Study*

5. See Kepner for details on her theory explaining how Whitman combines his scientific inclinations and his mystical ideas to form a "Theory of Nature."

6. Farland provides information about death and dying in the mid-19th century, focusing on New York City, Whitman's home for most of his life.

Notes

1. For full reviews from which these quotations were taken, see [Rufus W. Griswold]. *Criterion*, 1 (10 November 1855), 24. And "Studies among the Leaves: The Assembly of Extremes" [Review of *Leaves of Grass* and Tennyson's *Maud*]. *Crayon*, 3 (January 1856), 30-2. Qtd. in Whitman, Walt. "Leaves of Grass." 1855. Reprint. New York: Oxford University Press. 2005.
2. These quotations taken from [Charles A. Dana]. "New Publications: Leaves of Grass." *New York Daily Tribune*, 23 July 1855, 3 and [Charles Eliot Norton]. "Whitman's Leaves of Grass." *Putnam's Monthly: A Magazine of Literature, Science, and Art*, 6 (September 1855), 321-3. Qtd. in Whitman, Walt. "Leaves of Grass." 1855. Reprint. New York: Oxford University Press. 2005.
3. For full review, see "Notes on New Books." *Washington Daily National Intelligencer*, 18 February 1856, p. 2. Qtd. in Whitman, Walt. "Leaves of Grass." 1855. Reprint. New York: Oxford University Press. 2005.
4. John Burroughs explains Whitman's contributions to the area of science in literary words in his chapter "His Relation to Science." In his 1896 text *Whitman: A Study*.
5. See Kepner for details on her theory explaining how Whitman combines his scientific inclinations and his mystical ideas to form a "Theory of Nature."
6. Farland provides information about death and dying in the mid-19th century, focusing on New York City, Whitman's home for most of his life.

7. In addition the Kepner and Farland mentioned previously, Aspiz, Burroughs, Scholnick, and Wrobel also explore Whitman's relationship to the sciences of his time and his purpose in including scientific references in his poetry.
8. In addition to considering Whitman's relation to science, Kepner looks at his religious ideals. Also see Beck, Burke and also Burroughs' chapter "His Relation to Religion" for considerations of Whitman's treatment of religion in *Leaves of Grass*.
9. Among the empirical sciences of the era were the methods of Francis Bacon and John Locke as briefly explained in Aspiz (219) and the science of chemistry, particularly the ideas presented by German chemist Justus Liebig in his text *Chemistry in Its Application to Physiology and Agriculture* which was published in English in 1847 and which Whitman favorably reviewed in 1847.
9. See Wrobel's Introduction to *Pseudo-Science & Society in 19th Century America* for a description to the contemporary cultural reaction to the pseudosciences.
10. See Legan's chapter "Hydropathy, or the Water Cure" in *Pseudo-Science and Society in 19th Century America* for a detailed look at hydropathy and its practices in the 19th century.
11. See Legan, p. 80, for a description of the social climate which allowed a ready reception of these pseudoscientific ideas.
12. Greenway extensively explains the electrical devices of the era and their association with the pseudoscience of Mesmerism in his chapter "'Nervous Disease' and Electric Medicine."
13. Scheick provides a detailed look at death and its rituals in the 19th century.

14. Chambers, *Vestiges of the Natural History of Creation*, ed. Gavin DeBeer. New York: Humanities Press, 1969.
15. Definitions from Oxford English Dictionary online. Bush's 1847 text discusses the relationship of Mesmerism to Swedenborgianism in which he makes numerous references to the influx of information from the spirit world or the mind of another human.
16. Hungerford explains phrenology readings in detail and explores Whitman's relationship to the pseudoscience including his connection with the Fowlers and his writings on the topic.
17. Wrobel explains the phrenologists' views on physical health in his article "Whitman and the Phrenologists: The Divine Body and the Sensual Soul."
18. Aspiz supports his theory of Whitman as a dualist in his chapter "Science and Pseudoscience."
19. For more information on Wrobel's concept of Whitman "early thinking" as materialistic monism, see his article "Whitman and the Phrenologists: The Divine Body and the Sensuous Soul," p.21.
20. See Reynolds' afterword to the 2005 150th anniversary reprinting of the original *Leaves of Grass*, cite below.
21. Miller describes Whitman's process in composing *Leaves of Grass* using evidence from Whitman's early notebooks and other writings.
22. Black analyzes four of Whitman's poems ("Clef Poem," "As I Ebb'd With the Ocean of Life," "There Was a Child Went Forth," and "Out of the Cradle Endlessly Rocking"), explaining how Whitman tried to find relief of mental conflicts through catharsis and how that catharsis was temporary.

23. See Scheick's chapter "Death and the Afterlife" for a description Whitman's personal experience with the deaths of loved ones as well as the national "preoccupation" with death in the 19th century.

24. Farland details the living conditions in New York City during the 19th century.

25. Reynolds sketches the social and political climate of the mid-1850s in his chapter "I Contain Multitudes": The First Edition of *Leaves of Grass*. See in particular, 306-307.

26. Frank discusses Whitman's view of the common man as "sublimely poetic, world-making power" (402).

27. Reynolds, p. 307.

28. Frank looks at Whitman's poetic representation of the people and his radical democratic vision for a democracy in which all citizens are equally values.

29. In John 4, Jesus offers salvation to a prostitute. Biblical references taken from The King James Version of the Bible, as found on Biblegateway.com.

30. See 1 Corinthians 10:27 and Luke 10:8.

31. See Mark 2:17 and Luke 5:32 for Jesus' claim to call sinner rather than the righteous.

Works Cited

- Aspiz, Harold. "Science and Pseudoscience." *A Companion to Walt Whitman*. Ed. Donald D. Kummings. Malden, Mass: Blackwell Publishing, 2006. 216-232. Print.
- Biblegateway.com*. HarperCollins Christian Publishing. September 2010. April 3, 2014. Web.
- Black, Stephen A. "Radical Utterances from the Soul's Abysms: Toward a New Sense of Whitman." *PMLA*. 88, 1. (Jan. 1973) 100-111. Web.
- Burroughs, John. *Whitman: A Study*. Boston and New York: Houghton, Mifflin and Company. 1896. Web.
- Bush, George. *Mesmer and Swedenborg: Or, The Relation of the Developments of Mesmerism to the Doctrines and Disclosures of Swedenborg*. New York: Allen, 1847. Web.
- Farland, Maria. "Decomposing City: Walt Whitman's New York and the Science of Life and Death." *ELH*, 74. 4. (Winter 2007). 799-827. Web.
- Frank, Jason. "Aesthetic Democracy: Walt Whitman and the Poetry of the People." *The Review of Politics*. 69, 3. Specail Issue on Politics and Literature (Summer 2007) 402-430. Web.
- Greenway, John L. "'Nervous Disease' and the Electric Medicine." *Pseudo-Science and Society in 19th Century America*. Ed. Arthur Wrobel. Lexington: The University Press of Kentucky, 1987. 74-99. Print.
- Hungerford, Edward. "Walt Whitman and His Chart of Bumps." *American Literature*. 2,4. (1931) 350-384. Web.
- Kepner, Diane. "From Spears to Leaves: Walt Whitman's Theory of Nature in 'Song of

Myself.'" *American Literature*. 51,2. (May 1979) 179-204. Web.

Legan, Marshall Scott. "Hydropathy, or the Water-Cure." *Pseudo-Science and Society in 19th Century America*. Ed. Arthur Wrobel. Lexington: The University Press of Kentucky, 1987. 74-99. Print.

Lozynsky, Artem. "Dr. Richard Maurice Bucke: A Religious Disciple of Whitman." *Studies in the American Renaissance*. (1977) 387-403. Web.

Miller, Matt. "Composing the First 'Leaves of Grass': How Whitman Used His Early Notebooks." *Book History*. 10. (Summer 2007) 103-129.

Reynolds, David. *Walt Whitman's America: A Cultural Biography*. New York: Alfred A. Knopf, 1995. Print.

Scheick, William J. "Death and the Afterlife." *A Companion to Walt Whitman*. Ed.

Donald D. Kummings. Malden, Mass: Blackwell Publishing, 2006. 216-232. Print.

Scholnick, Robert. J. "'The Password Primeval': Whitman's Use of Science in 'Song of Myself.'" *Studies in the American Renaissance*. (1986) 385-425. Web.

Whitman, Walt. "Leaves of Grass." 1855. Reprint. New York: Oxford University Press. 2005.

Wrobel, Arthur. *Pseudo-Science and Society in 19th Century America*. Lexington: The University Press of Kentucky, 1987. Print.

---. "Whitman and the Phrenologists: The Divine Body and the Sensual Soul." *PMLA*. 89,1. (1974) 17-23. Print.

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